

# Installing Your Child's Car Seat Tightly

## Seat Belts, LATCH, & Tethers Explained

**Child  
Safety  
Facts  
2005**

### Tight Installation = Better Protection

It is very important that your child's car seat (safety seat) is tightly secured in the car. That is the job of a seat belt or, in newer vehicles, the LATCH system (page 4). If the lap part of the seat belt does not stay tight or the car seat slides around on the vehicle seat, your child could be injured in a crash.

Always read the instructions that come with the car seat. Also read the section on seat belts in your vehicle owner's manual (A). Starting with 1996 models, vehicles must have seat belts that will stay tight around a car seat.

If you cannot attach your seat tightly using this fact sheet and the instructions, get in touch with a local car seat inspection station or child passenger safety technician (see Resources).



**A.** Always read the vehicle and car seat instructions.

**B.** Push down on car seat to tighten the seat belt.



**Make  
Every Ride  
A Safe Ride**



### Using this fact sheet

Car seat installation can be confusing. There are ways to make almost all kinds of seat belts hold your child's car seat tightly.

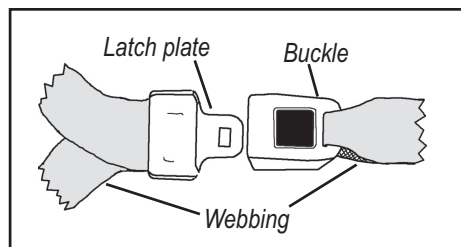
Many newer vehicles have features that will help, but some older owner's manuals are not helpful.

This sheet will help you:

- learn what kind of safety equipment your vehicle has,
- learn ways to make the seat belt hold the car seat tightly.

### Basics of Installation

- 1) Put the seat belt through or around the correct belt path (B) on the car seat. Use the path shown on the car seat labels and instructions. (If the car seat is the type that can be used rear facing and forward facing, there will be two different paths.)
- 2) The lap part of the belt must stay tight. To make it tight, push the car seat down into the vehicle seat cushion while you tighten the belt. Use your full weight if possible (B).
- 3) Know how to make the lap part stay locked around the car seat. (Follow this sheet, car seat instructions, and vehicle owner's manual.)
- 4) To check for a tight fit, hold the car seat close to the seat belt and pull forward and from side to side. If the car seat moves more than one inch or the belt stays loose (C), the car seat is not tightly secured.



All seat belts have these basic parts. The anchors and retractor may not be visible.

### Parts of a Seat Belt

- Anchor:** the hardware that attaches the lap and shoulder belts to the vehicle; usually attached to the floor, side wall, or vehicle seat.
- Buckle:** the part of the seat belt system that the latch plate goes into.
- Lap belt:** The type of seat belt that goes over the hips.
- Lap-only belt:** A lap belt with no shoulder belt.
- Latch plate:** the flat metal "tongue" that clicks into the buckle.
- Retractor:** the device that takes up slack on a seat belt. It usually is not visible. Many lap-only belts do not have a retractor and must be tightened by hand.
- Shoulder belt:** The webbing that goes over one shoulder. Usually the lap and shoulder belts are connected (a lap-shoulder belt or three-point belt).
- Webbing:** the heavy fabric part of the seat belt.

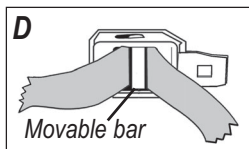
### Back Seat is Safest

NEVER put a rear-facing infant or toddler in the front seat of the car with a passenger air bag. Infants must always ride in the back seat facing the rear of the car. Children under age 13 should ride in the back seat. This is the safest place, with or without an air bag.

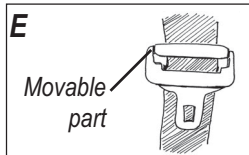
## Latch plates in your vehicle

### Seat belts with locking latch plates

Locking latch plates (D & E) usually work well with car seats. They are found on lap-only belts in most center rear seats. In many vehicles, the lap-shoulder belts will also have them. A movable bar or other part keeps the belt snug after it is tightened.



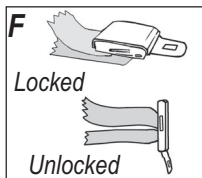
**D.** Standard locking latch plate, (back side) with movable bar



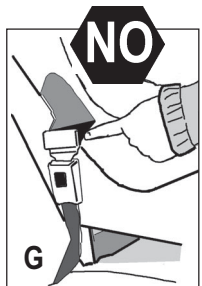
**E.** Cinching latch plate, also known as lightweight locking, (back side) with movable part

To tighten this kind of latch plate, pull on the free end of the lap-only belt, or pull up on the shoulder part of the lap-shoulder belt.

**This kind of latch plate does not stay tight if the belt comes out of it in the unlocked position (F).** Check to see if the buckle rests on the edge of the belt path or frame of the car seat (G). In this position, the latch plate will not hold the belt tightly. To fix, tighten the belt and then turn the adjustable end of the belt over (H). This will keep it tightly locked in most vehicles. (Use one-half or one full turn.) If not, you can twist the buckle end up to three times to shorten it.

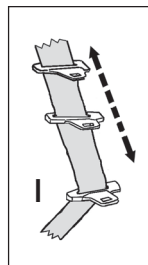
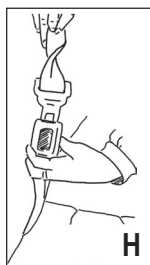


**F.** Locking latch plate in locked position



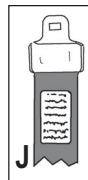
**G.** Locking latch plate in unlocked position

**H.** One twist in belt with locking latchplate

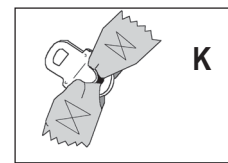


**I.** Sliding latch plate on lap-shoulder belt

**J.** Label on safety belt



**K.** safety belt with webbing sewn to latch plate



The cinching type of locking latch plate (E) may loosen slowly over time. A locking clip (page 3, L) may be needed to keep it tight.

### Lap-shoulder belt with a free-sliding latch plate

Many lap-shoulder belts have a latch plate that allows the belt webbing to slide through even when the belt is buckled (I). This kind of seat belt will have a retractor.

First check to see if the belt has a switchable retractor (in 1996 and newer vehicles)—see next column.

If it does not have a switchable retractor, you will need a locking clip (page 3, L) to lock the belt around a car seat. Some belts are labeled to tell you the locking clip is needed (J).

### Sewn-on latch plate

This latch plate is permanently stitched to the belt webbing (K). It can be on a lap-only belt or a lap-shoulder belt. This type of seat belt cannot be adjusted at this point. Check to see if the belt is attached to a retractor that can be locked or switched (see right).

Otherwise, if possible, it is best to use another seating position in the vehicle. As a final solution, it may be necessary to use a special heavy-duty clip to shorten the lap part of the belt (see page 3).

### Switchable latch plate

This type normally acts as a sliding latch plate but can be switched to lock on the belt webbing by sliding a button or turning a dial to the “child” position.

## Three kinds of retractors to keep the seat belt tight

### Emergency locking retractor

This type locks only during a crash or sudden stop. It can be on a lap-shoulder belt or a lap-only belt. It allows the belt to be lengthened during normal driving.

### Automatic locking retractor

This retractor locks whenever you stop pulling it out. To check for an automatic locking retractor, pull the lap belt part way out and stop. When you pull on it again, you will find it is locked. This kind of belt will hold the car seat tightly. After buckling the belt, push all the slack back into the retractor.

### Switchable retractor

This kind is made to hold car seats tightly. It is an emergency locking retractor that can be switched to an automatic locking retractor. It may be on either a lap belt or a lap-shoulder belt. The belt usually has a label on it telling you how it works (J). You can also read about it in the vehicle owner's manual.

Newer vehicles (1996 or later) with a sliding latch plate on a lap-shoulder belt will have this type of retractor.

In most cases, you switch the retractor by pulling the belt slowly all the way out. You will hear a click. When the belt rolls back in, you will hear a click-click-click. That means it will lock and stay tight around a car seat.

### Check your owner's manual

The vehicle manual usually has details about using the seat belt to install a child restraint.

## How to use a locking clip on a lap-shoulder belt

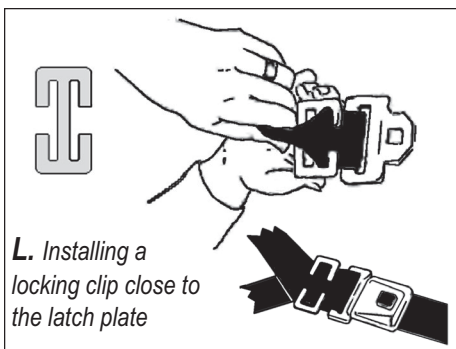
If the lap-shoulder belt with a sliding latch plate (page 2) does not have a switchable retractor, you should use a metal H-shaped locking clip (L, below) to keep the belt tight.

A clip comes with most new car seats. If you do not have one, you can buy one from a car seat company and some stores. A few car seat models have "lock-offs" built in. Lock-offs take the place of a regular locking clip (see the car seat instructions).

### Using a locking clip

1. Put the belt through the correct path on the car seat and buckle it. Pull on the shoulder belt to tighten the lap part.
2. Hold the two parts of the webbing together at the latch plate and unbuckle it.
3. Put both pieces of webbing through the locking clip together, close to the latch plate (L).
4. Buckle the belt again and make sure the car seat is installed tightly. If not, start again, and take up a little bit more slack.
5. Remember to remove the locking clip when the belt is not holding a car seat.

**The regular locking clip that comes with car seats must be used ONLY this way. Never use a regular locking clip on a lap-only seat belt.**



## Tightening belts with retractors that do not lock

Seat belts with emergency locking retractors on the lap part of the webbing can be pulled out when buckled. These are lap belts and lap-shoulder belts with sewn-on latch plates. (**K**)

If this kind of belt does not have a switchable retractor, the only way to tighten it is with a special belt-shortening clip (also called a "heavy-duty locking clip").

### Belt-shortening clip

This special clip looks just like a regular locking clip but is made from extra-strong metal. Some versions are a little bigger, about three inches long.

**WARNING:** You should never use a regular locking clip to shorten a belt. Doing so would put your child in serious danger in a crash. The regular clip could bend and release the belt, leading to possible serious injury.

It is almost impossible to tell the difference between a regular locking

clip and a heavy-duty one. You can be sure you have a heavy-duty one only if you get it from Ford, GM, Nissan, or Toyota. Your vehicle owner's manual may explain how to use it. (Belt-shortening instructions come only with the Toyota clip.) If you buy a heavy-duty clip, mark it with a dab of nail polish or paint so you will know which kind it is.

If you have questions about how to use belt-shortening clips or keeping child restraints tightly secured in your vehicle, contact a local child passenger safety technician (see Resources).

Part numbers for heavy-duty locking clips are:

Ford: F03Z-5461249

General Motors: 94844571

Nissan: H8010-89970

Toyota: 73119-22010

(with instructions for use)

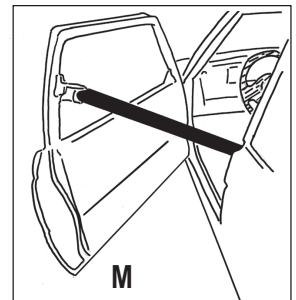
## Can I use an automatic seat belt to install a car seat?

**The best way to avoid problems with automatic belts is to buckle up children in the back seat.** Automatic shoulder belts are only in the front seat. Some are attached to the front door and wrap around when you close the door (**M**). Others have a motor that moves along a track above the door (**N**) when you turn on the vehicle.

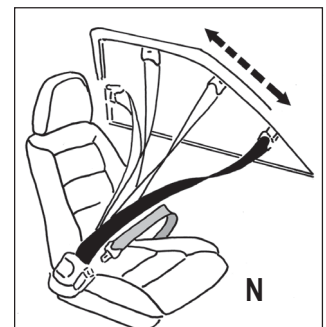
If you have no option and must put a child's car seat in front with this kind of belt, be sure to read the owner's manual carefully. Some with separate lap belts have special buckles for car seats. Some with both lap and shoulder belts attached to the door have special car seat attaching belts.

See SBS USA (page 4, Resources) for a list of special parts.

**M.** Automatic shoulder belt attached to door



**N.** Automatic shoulder belt on track above door





## My car has scooped out seat cushions. How can I install my child's car seat?

Some vehicle seats have hollows and humps that prevent the base of the car seat from resting flat on the cushion. Use another position if possible, or find a car seat with a base that fits better in your car.

## What can I do if seat belts are anchored forward of the seat back?

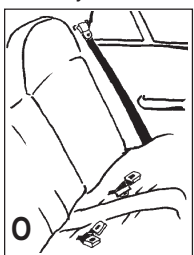
Belts that come out of the seat cushion (O) or from the side of the vehicle seat cannot hold your child's car seat securely against the vehicle seat back. If your car seat moves more than an inch forward or side to side, use a different place in the car if possible. If there is no better position, installing a tether will help hold a forward-facing car seat tightly.

## Why should I use a tether?

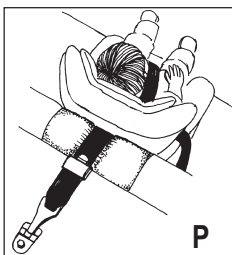
A **top tether strap** (P) bolted to the frame of the vehicle holds the upper part of a forward-facing car seat. A tether improves safety by limiting forward movement. This may be the only way to install a car seat tightly if belts are anchored forward of the seat back.

Forward-facing car seats made since September 1999 have tethers attached. Some makers have tether kits for their older forward-facing seats.

**O.** Seat belt buckles too far forward to anchor car seat securely



**P.** Tether strap holds top of car seat in place



Do not try to install a tether on a car seat not made to use one.

Cars made since the 2000 model year have tether anchors already in place. Look for the symbol (R).

Many older vehicles have holes drilled behind the rear seat to hold tether anchors. Check the vehicle owner's manual for tether anchor locations.

## Using the LATCH system

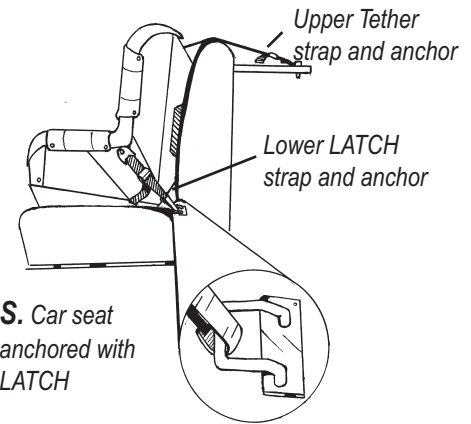
LATCH (Lower Anchors and Tethers for Children) is the new way to install car seats in motor vehicles. It makes tight car seat installation easier in many vehicles. If it does not hold a car seat tightly, use the seat belt instead.

LATCH replaces the use of a seat belt to install a car seat. It has two parts (S, above right):

- 1. On car seats:** Upper and lower attachments on most car seats made after September 1, 2002. Major car seat makers offer add-on lower attachment straps for certain older models. Upper (tether) straps have been sold with forward-facing car seats for several years. Kits are sold for many older models also.
- 2. In vehicles:** Upper and lower anchors are in all 2003 model year vehicles and many 2001–02 models. Symbols mark hidden anchors (Q and R, below). Upper anchors (tether anchors) have been required in most cars since model year 2000.

**Q.** (right) Symbol for lower LATCH anchors

**R.** (below) Symbol for the top tether anchor (Upper LATCH anchor)



**S.** Car seat anchored with LATCH

## Basics of Using LATCH

**Always** read and follow both the manufacturers' instructions for the car seat **and** the vehicle.

**Always** tighten LATCH attachments after connecting them to the anchors in the vehicle. Tighten the lower attachments first in most cases.

**Do not use the inner bars of the side lower anchors to install a car seat in the center position** unless the vehicle **and** the car seat instructions allow it. If it is not allowed, use the seat belt in the center instead.

**Never** attach two car seats to one LATCH anchor.

**Use only add-on LATCH straps for the specific car seat models** listed by the maker.

## RESOURCES:

NHTSA, [www.nhtsa.dot.gov](http://www.nhtsa.dot.gov),  
888-DASH-2-DOT (888-327-4236)

List of inspection stations, technicians:  
[www.seatcheck.org](http://www.seatcheck.org),  
866-SEATCHECK (866-732-8243)

SBS USA - Parent information; list of special belts, buckles, parts:  
[www.carseat.org](http://www.carseat.org);  
800-745-SAFE (7233);  
Spanish, 800-747-SANO (7266)